



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,001	06/27/2003	Frederick Geheb	04644-133001	8371
26161	7590	02/23/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			GEDEON, BRIAN T	
			ART UNIT	PAPER NUMBER
			3766	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

6

Office Action Summary	Application No. 10/609,001	Applicant(s) GEHEB ET AL.	
	Examiner Brian T. Gedeon	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2003.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-22 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 27 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>10/27/03, 3/22/04, 9/24/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al. (US Patent no. 6,390,996) in view of Parker et al. (US Patent no. 4,588,383) and further in view of Blazewicz et al. (US Patent no. 6,632,402).

In regards to claim 1, Halperin et al. discloses a monitor 10 with the objective of providing for measuring and prompting chest compressions to facilitate the effective administration of CPR, col 3 lines 49-51. Displacement sensors 12, 24, and 25 sense and indicate compressions made on the chest, col 5 lines 55-67 through col 6 lines 1-5. Microprocessor 28 consists of the necessary circuitry for handling calculations needed to perform the various functions of the monitor 10. An audible indicator 18 within the monitor 10 is modulated to indicate when the proper chest displacement is achieved and prompts the user to compress at the proper rate, col 9 lines 14-28. However, Halperin et al. does not include "at least one of" a SpO2 sensor nor pulse sensor. Halperin et al. does teach that survival from cardiac arrest has been shown to be related to blood flow generated during CPR, and chest compressions are in direct relation to the blood flow, col 3 lines 11-17. Parker et al. discloses a CPR trainer/prompter device 10, which is optionally provided with a pulse monitor, col 6 lines 41-43. The pulse monitor checks the patient's pulse and determines which sequence of chest compressions should be used, col 3 lines 37-53. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements of Halperin et al. with the elements of Parker et al. in order to enhance CPR

Art Unit: 3766

therapy by administering chest compressions at the proper frequency and time.

Further, Halperin et al. fails to disclose the use of an oxygen sensor such as a SpO₂ sensor. Blazewicz et al. teaches that oxygen concentration monitoring is effective in determining CRP efficacy. Therefore it would have been obvious to one of ordinary skill in the art use provide a sensor for measuring oxygen concentration with a CPR in order to provide feedback to the rescuer about the efficacy of his/her therapy.

In regards to claim 2, Halperin et al. states that timely defibrillation shocks can be administered via defibrillation electrodes 62 coupled via defibrillation lines 64 to a defibrillation device (not shown), col 9 lines 57-58.

In regards to claim 3, Halperin et al. substantially describes the claimed invention except fails to disclose the use of an oxygen sensor such as a SpO₂ sensor. Blazewicz et al. teaches that oxygen concentration monitoring is effective in determining CRP efficacy. Therefore it would have been obvious to one of ordinary skill in the art use provide a sensor for measuring oxygen concentration with a CPR in order to provide feedback to the rescuer about the efficacy of his/her therapy.

In regards to claim 4, Halperin et al. substantially describes the claims invention except for the pulse sensor. Parker et al. discloses a CPR trainer/prompter device 10, which is optionally provided with a pulse monitor, col 6 lines 41-43. The pulse monitor checks the patient's pulse and determines which sequence of chest compressions should be used, col 3 lines 37-53. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the elements of

Art Unit: 3766

Halperin et al. with the elements of Parker et al. in order to enhance CPR therapy by administering chest compressions at the proper frequency and time.

In regards to claim 5, the chest compression monitor 10 of Halperin et al. has various sensors for detecting displacement of the chest during compressions, col 5 lines 55-67 through col 6 lines 1-5.

In regards to claim 6, the chest compression monitor 10 of Halperin et al. has an accelerometer 12 for use as described in claim 5.

In regards to claim 7, the device of Halperin et al. has a microprocessor 28 receives the output from the accelerometer 12 and other sensors 24 and 25 and performs the calculations pertaining to the various functions of the monitor, col 7 lines 18-28.

In regards to claim 8, the device of Halperin et al. uses an accelerometer 12 as a compression sensor to detect linear motion and facilitates true determination of displacement in the of the chest, col 6 lines 50-67.

In regards to claim 9, the device of Halperin et al. has an audible indicator 18 to indicate when proper chest compressions have been achieved, and will prompt the user when chest displacement is desired, col 9 lines 14-28.

In regards to claim 10, Halperin et al. substantially describes the claimed device except for the metronome to convey the desired rate of compression to the user. Parker et al. uses metronome type "ticks", col 7 lines 52-53. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to use

a metronome type indicator to provide a cue for the desired compression rate to a rescuer.

In regards to claim 11, the device of Halperin et al. provides an audible indicator 18 to indicate the proper chest compression frequency and displacement rates, col 9 lines 14-16. However it does not convey audible instructions by means of speech. The device 10 of Parker et al. provides the appropriate hardware for conveying voice prompts to the rescuer regarding the administration of CPR therapy, col 3 lines 26-53. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide hardware to audibly prompt a rescuer through the CPR procedure.

In regards to claim 12, the device of Halperin et al. can alternatively be connected to a lap top computer to house the microprocessor 28 that performs calculations on the displacement signals, col 7 lines 29-33.

In regards to claim 13, the device of Halperin et al. provides signals to maintain the frequency of compressions with a desired range of frequency compressions and to maintain chest compression within a desired distance range, col 4 lines 10-18, thereby comparing the compression rate to a desired rate.

In regards to claims 14, 17, 18, 21, and 22, Halperin et al. in view of Parker et al. substantially describe the claimed invention except for the altering of therapy based on the oxygen concentration readings. Halperin et al. substantially describes the invention as claimed except for specific commands given to the rescuer regarding pressing harder, releasing from the chest, increase rate, or give a breath. Blazewicz et al.

Art Unit: 3766

teaches that oxygen concentration monitoring is effective in determining CRP efficacy. Therefore it would have been obvious to one of ordinary skill in the art use provide a sensor for measuring oxygen concentration with a CPR and to provide prompts to the rescuer about the efficacy of his/her therapy.

In regards to claims 15, 16, 19, and 20, Halperin et al. substantially describes the invention as claimed except for specific commands given to the rescuer regarding pressing harder, releasing from the chest, increase rate, or give a breath. The device of Parker et al. provides a voice prompt guiding the rescuer to initiate various sequences regarding compression therapy or ventilation therapy, col 3 lines 27-55. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide with prompts regarding therapy to the rescuer in order to guide the rescuer into giving the most effective therapy possible to a victim.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Elghazzawi et al. (US Patent no. 6,961,612) provides an automatic external defibrillator with a sensor to detect when a rescuer is delivering CPR to a patient. Pastrick et al. (US Patent no. 6,872,080) discloses a portable electronic training device for prompting a trainee to the proper steps of CPR and defibrillation therapy. Pierce et al. (US Patent no. 4,862,385) discloses a compact and portable device to provide training for CPR, and reminds the rescuer when certain sequences are needed during therapy.

Art Unit: 3766

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Gedeon whose telephone number is (571) 272 3447. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272 6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Gedeon
Patent Examiner
Art Unit 3766



Robert E. Pezzuto
Supervisory Patent Examiner
Art Unit 3766

BTG